

Amendments to the Specification

At page 1, prior to the paragraph entitled "FIELD OF THE INVENTION", please insert the following paragraph:

This application claims priority to US Provisional Application 60/413,911, filed September 27, 2002. The entire disclosure of the above identified application is incorporated by reference herein.

Please replace the indicated existing paragraphs with the following paragraphs:

(Paragraph 19) Figure 4A is an immunohistochemistry for human Kv1.5 and illustrates Kv1.5 overexpressed in CH-Ad5-Kv1.5 Pas; Figure 4B is a graph depicting mRNA expression of channels in response to CH; and Figure 4C is a graph depicting the location of the expression of Kv1.5 mRNA;

(Paragraph 20) Figures 5A, 5B, and 6 illustrate the effect of gene transfer on K<sup>+</sup> Current density;

(Paragraph 22) Figure 8A illustrates mRNA<Kv1.5 and Kv2.1 expressed in the media and SMCs of DA and Figure 8B is an image of SMCs showing the localization of SM $\alpha$ -actin and Kv1.5;

(Paragraph 33) Figure 13A and B are images is an image of human DASMC showing an elaborate mitochondrial network (100X);

(Paragraph 34) Figure 13C illustrates the effects of antimycin, rotenone and cyanide on TMRM-loaded DASMC mitochondria and Figure 13C illustrates the effect of rapid increases in PO<sub>2</sub> hyperpolarize  $\Delta\Psi_m$  and Rotenone depolarizes this normoxia  $\Delta\Psi_m$ ;

(Paragraph 121) Mitochondria-derived ROS are the redox

mediators of normoxic DA constriction. Inhibitors of the proximal ETC and authentic hypoxia rapidly depolarize  $\Delta\Psi_m$  in DASMCs in primary, hypoxic culture, as shown in Figure 13A-D 13A-C. On the left the DASM mitochondria, shown in Figures Figure 13A and B, are imaged with TMRM (nuclei stained with Hoecst 33342) and on the right they are with JC-1 (which shows high  $\Delta\Psi_m$  in red and depolarized mitochondria in green). Conversely, cyanide 10 $\mu$ M does not acutely alter  $\Delta\Psi_m$ , as shown in Figure 13C 13B. Cyanide also depolarizes  $\Delta\Psi_m$ , but only at high doses. P<0.05 value differs from control. Rapid increases in PO<sub>2</sub> (from 45 to 100 mmHg) hyperpolarize  $\Delta\Psi_m$  (increase in the red/green ratio measured using JC-1). Rotenone (10 $\mu$ M) depolarizes this normoxia  $\Delta\Psi_m$  (\* P<0.05 value differs from control; see Figure 13C).